



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/680,690	10/07/2003	Ravi Kuchibhotla	CS23737RL	6201

20280 7590 01/20/2006

MOTOROLA INC
600 NORTH US HIGHWAY 45
ROOM AS437
LIBERTYVILLE, IL 60048-5343

EXAMINER

VU, MICHAEL T

ART UNIT	PAPER NUMBER
----------	--------------

2683

DATE MAILED: 01/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/680,690	Applicant(s) KUCHIBHOTLA ET AL.	
	Examiner Michael Vu	Art Unit 2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/07/03</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park (US 6,741,868) in view of Choi (US 2003/0040311)

Regarding to **claim 1**, Park teaches a method for selecting a core network for a communication device [Abstract, Title] comprising the steps of: receiving at least one public land mobile network identifier (PLMNid) (C18, L1-15); **but is silent on** selecting a PLMNid to form a selected public land mobile network identifier [0044-0045]; setting an indicator to indicate whether a substitute public land mobile network is allowed;

Art Unit: 2683

determining whether the selected public land mobile network identifier corresponds to a shared network; forming a registration request message containing the selected public land mobile network identifier; including the indicator in the registration request message, if the selected public land mobile network identifier corresponds to a shared network; and transmitting the registration request message.

However, Choi teaches cell selection method of mobile terminal selects a serving cell of a PLMN, which confirms PLMN-IDS the registered and then searched a serviceable PLMN ID [0044, 0045, 0071].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Park, such that setting an indicator to indicate whether a substitute public land mobile network is allowed; determining whether the selected public land mobile network identifier corresponds to a shared network; forming a registration request message containing the selected public land mobile network identifier; including the indicator in the registration request message, if the selected public land mobile network identifier corresponds to a shared network; and transmitting the registration request message, to provide the mobile terminal looks for a suitable cell within the chosen PLMN and chooses that cell to provide available services such as "camping on the cell".

Regarding **claims 3, 6** Park/Choi teach a method according to claim 1, Choi further teaches wherein the step of selecting includes the communication device automatically choosing the selected public land mobile network identifier according to the following priority levels [0005]: (1) registered public land mobile network [0044,

0045, 0071], (2) home public land mobile network user-controlled list of public land mobile network [0006-0008], (4), operator-controlled list of public land mobile network [0011], (5) public land mobile network with sufficient received signal quality in random order [0005, 0013], (6) other public land mobile network in order of received signal quality (Abstract).

As examiner noted when a user turns on a mobile phone, the mobile phone must select a PLMN for providing communication services. According to the Global System for Mobile communication (GSM) specifications, when a mobile phone selects a PLMN, the registered public land mobile network (RPLMN) that the mobile phone registered last time is the first priority PLMN, and the home public land mobile network (HPLMN) for the mobile phone is the second priority PLMN. In other words, when selecting a PLMN, a mobile phone must select a PLMN with higher priority according to the specifications. Only when the first priority PLMN (for example, (RPLMN) cannot be selected, a mobile phone can select the second priority PLMN (for example (HPLMN) to provide communication

Regarding **claim 4**, Park/Choi teach a method according to claim 3, wherein the step of setting indicates that a substitute public land mobile network is allowed when the selected public land mobile network identifier is selected at priority level (5) [0008, 0013-0014] of Choi.

Regarding **claim 5**, Park/Choi teach a method according to claim 3, wherein the step of setting indicates that a substitute public land mobile network is allowed when the

Art Unit: 2683

selected public land mobile network identifier is selected at priority level (6) [0008, 0013-0014].

Regarding **claim 7**, Park/Choi teach a method according to claim 6, wherein the step of selecting further includes: receiving a selected public land mobile network identifier from the user (Abstract, [0006]) of Choi.

Regarding **claim 8**, Park/Choi teach a method according to claim 6, wherein the step of setting comprises: setting the indicator to indicate that a substitute public land mobile network is disallowed ([0005] alternative cell) of Choi.

Regarding **claim 9** Park/Choi teach a method according to claim 1, wherein the step of setting comprises: setting the indicator to indicate that a substitute public land mobile network is disallowed ([0005] alternative cell) of Choi.

Regarding **claim 10**, Park teaches a method for selecting a public land mobile network for a communication device comprising the steps of (C22, L53-60): receiving a registration request message (C5, L11-17); **but is silent on** extracting a selected public land mobile network identifier from the registration request message; and determining if the registration request message includes an indicator indicating whether a substitute core network is allowed. However, Choi teaches cell selection method of mobile terminal selects a serving cell of a PLMN, which confirms PLMN-IDS the registered and then searched a serviceable PLMN ID [0008, 0044, 0045, 0071], and ([0005] alternative cell).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Park, such that extracting a selected public land

mobile network identifier from the registration request message; and determining if the registration request message includes an indicator indicating whether a substitute core network is allowed, to provide the mobile terminal looks for a suitable cell within the chosen PLMN and chooses that cell to provide available services such as “camping on the cell”.

Regarding **claim 11**, Park/Choi teach method according to claim 10, the comprising the steps of: determining a substitute public land mobile network ([0005] of Choi), if the indicator indicates that a substitute public land mobile network is allowed ([0005, 0008] of Choi; and forwarding the registration request message to the substitute public land mobile network ((C5, L11-17) of Park).

Regarding **claim 12**, Park/Choi teach a method according to claim 10, wherein the substitute public land mobile network shares radio access resources with a public land mobile network indicated by the selected public land mobile network identifier [0044-0045, 0071] of Choi.

Regarding **claim 13**, Park/Choi teach a method according to claim 10, wherein the substitute public land mobile network is a public land mobile network indicated by the selected public land mobile network identifier [0044-0045, 0071] of Choi.

Regarding **claim 14**, Park/Choi teach a method according to claim 10, wherein the substitute public land mobile network is not a public land mobile network indicated by the selected public land mobile network identifier [0044-0045, 0071] of Choi.

Regarding **claim 15**, Park/Choi teach a method according to claim 10, comprising the step of: forwarding the registration request message to a public land

mobile network identified by the selected public land mobile network identifier, if the indicator indicates that a substitute public land mobile network is not allowed [0044-0045, 0071] of Choi.

Regarding **claim 16**, Park/Choi teach a method according to claim 10, comprising the step of: forwarding the registration request message to a public land mobile network identified by the selected public land mobile network identifier, if the registration request message does not include an indicator [0044-0045, 0071] of Choi.

Regarding **claim 17**, Park teaches a method for selecting a public land mobile network (PLMN) for user equipment (UE) comprising the steps of: receiving at least one PLMN identifier (PLMNid); **but is silent on** selecting a PLMNid to form a selected PLMNid; setting an indicator to indicate whether a substitute PLMN is allowed; determining whether the selected PLMNid corresponds to a shared radio access network (RAN); forming a registration request message with the selected PLMNid; including the indicator in the registration request message, if the selected PLMNid corresponds to a shared RAN; and transmitting the registration request message from the UE. However, Choi teaches Choi teaches cell selection method of mobile terminal selects a serving cell of a PLMN, which confirms PLMN-IDS the registered and then searched a serviceable PLMN ID [0008, 0044, 0045, 0071], and ([0005] alternative cell).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Park, such that selecting a PLMNid to form a selected PLMNid; setting an indicator to indicate whether a substitute PLMN is allowed; determining whether the selected PLMNid corresponds to a shared radio access

Art Unit: 2683

network (RAN); forming a registration request message with the selected PLMNid; including the indicator in the registration request message, if the selected PLMNid corresponds to a shared RAN; and transmitting the registration request message from the UE, to provide the mobile terminal looks for a suitable cell within the chosen PLMN and chooses that cell to provide available services such as “camping on the cell”.

Regarding **claim 18**, Park/Choi teach the method according to claim 17, wherein the step of setting comprises: setting the indicator to indicate that a substitute PLMN is disallowed when the UE is in manual network selection mode [0005, 0008, 0044, 0045, 0071] of Choi.

Regarding **claim 19**, Park/Choi teach the method according to claim 17, wherein the step of setting comprises: setting the indicator to indicate that a substitute PLMN is disallowed when the UE automatically selects a PLMNid that corresponds to a registered PLMN (RPLMN) of the UE, a home PLMN (HPLMN) of the UE, a PLMN on a user-controlled list of PLMNs, or a PLMN on an operator-controlled list of PLMNs [0005-0008] of Choi.

Regarding **claim 20**, Park/Choi teach a method according to claim 17, the comprising the steps of: receiving the registration request message at a radio access network (RAN) (C5, L11-17) of Park; extracting the selected PLMNid from the registration request message; and determining if the registration request message includes the indicator (C5, L11-17, C18, L1-15) of Park.

Regarding **claim 21**, Park/Choi teach the method according to claim 20, the comprising the steps of: determining a substitute PLMN, if the indicator indicates that a substitute PLMN is allowed; and forwarding the registration request message to the substitute PLMN (Fig. #1B GSM-MAP Network, C5, L12-16, and C18, L5-40 reads on).

Regarding **claim 22**, Park/Choi teach the method according to claim 21, wherein the substitute PLMN shares radio access resources with a PLMN indicated by the selected PLMNid [0044-0045] of Choi.

Regarding **claim 23**, Park teaches a method for selecting public land mobile network for a communication device comprising the steps of: (Fig. 1B GSM system, element 25, Prior Art): **but is silent on** receiving at least one public land mobile network identifier; selecting a public land mobile network identifier to form a selected public land mobile network identifier; setting an indicator to indicate whether a substitute public land mobile network is allowed; forming a registration request message containing the selected public land mobile network identifier; including the indicator in the registration request message; and transmitting the registration request message. However, Choi teaches cell selection method of mobile terminal selects a serving cell of a PLMN, which confirms PLMN-IDS the registered and then searched a serviceable PLMN ID [0008, 0044, 0045, 0071], and ([0005] alternative cell).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Park, such that receiving at least one public land mobile network identifier; selecting a public land mobile network identifier to form a selected public land mobile network identifier; setting an indicator to indicate whether a

Art Unit: 2683

substitute public land mobile network is allowed; forming a registration request message containing the selected public land mobile network identifier; including the indicator in the registration request message; and transmitting the registration request message, to provide the mobile terminal looks for a suitable cell within the chosen PLMN and chooses that cell to provide available services such as "camping on the cell".

Regarding **claim 24**, Park/Choi teach a method according to claim 6, wherein the priority level (3) user-controlled list of public land mobile networks is presented in priority order [0013] of Choi.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Park US 6,782,274

Maguire US 2003/0028644

Gupta US 6,567,667

Korpela US 6,801,786

Rune US 2004/0014484

Brandenberg US 6,212,390

Riihinen US 2002/0072363

Serna US 2004/0203736

Kil US 2001/0046859

Sayers US 6,539,237

Art Unit: 2683

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Vu whose telephone number is (571) 272-8131.

The examiner can normally be reached on 8:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael T. Vu



WILLIAM TROST
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600